

State of Hawaii
DEPARTMENT OF LAND AND NATURAL RESOURCES
Engineering Division
Honolulu, Hawaii 96813

September 9, 2010

Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

**APPLICATION FOR A DLNR DAM SAFETY CONSTRUCTION/ALTERATION PERMIT
PERMIT NO. 45 – HELEMANO 11 RESERVOIR (UOA-2010)
WAHIAWA, OAHU**

The Engineering Division hereby submits an application for your authorization and approval for issuance of a Dam Safety Construction/Alteration Permit for the removal of the HELEMANO 11 RESERVOIR to Dole Food Company Hawaii, pursuant to Chapter 179D Hawaii Revised Statutes and Chapter 190 Hawaii Administrative Rules.

APPLICANT:

Mr. Daniel Nellis
Dole Food Company Hawaii
1116 Whitmore Avenue
Wahiawa, HI 96786

LANDOWNER:

Same as applicant

SUMMARY OF REQUEST:

Application for a Dam Safety Construction/Alteration Permit for the removal of the Helemano 11 Reservoir, Wahiawa, Hawaii, See Exhibit 1.

LOCATION: Wahiawa, Oahu, Hawaii, TMK: (1) 6-4-01:0. See Exhibit 2.

BACKGROUND:

An application for the removal of the Helemano 11 Reservoir was filed on July 30, 2010 by the dam owner. During an inspection conducted on December, 2008 by DLNR Dam Safety engineers concluded that the dam was overtopped during a heavy storm event. The downstream embankment suffered severe damage. The owner was ordered to drain the reservoir and to keep it drained until an acceptable remedial action is completed. DLNR coordinated with the USGS to install remote water level sensors to monitor the water level of this structure until appropriated action may be taken.

The owner has thus decided to remove the reservoir from service.

DESCRIPTION:

The Helemano 11 Reservoir Dam is approximately 28 ft. high, 350 ft. long. The surface area of the reservoir is approximately 5.7 acres. The reservoir impounds a maximum of 90 ac-ft (29 MG). The

existing outlet is a 12 inch PVC pipe. There is a parabolic shaped concrete spillway channel, approximately 3 ft. wide at the invert and 5.5 ft. at the top. The downstream slope of the earthen embankment is badly eroded due to overtopping during a high flow event in December, 2008.

The owner is proposing to remove a trapezoidal section of the dam starting at the upstream toe of the dam. The bottom width is 75 ft. with a side slope of 5H:1V.

REMARKS:

Dole Food Company Hawaii and its consultant, R. M. Towill Corporation, have completed a basis of design, plans and specification and requests for the approval of a dam safety construction/alteration permit. The Department has reviewed the documents and concluded that it is sufficient for its intended purposes. Staff recommends approval of this permit application. See Exhibit 3.


Chapter 343 Analysis: This structure is located on private land and is not in the conservation district. Therefore, an EA is not required.

RECOMMENDATION:

That the Board:

1. Authorize the approval and issuance of the Dam Safety Construction/Alteration Permit for this project; and
2. Direct the Chairperson to issue a dam safety permit for the removal of the Helemano 11 Reservoir (DLNR Dam Safety Construction/Alteration Permit No. 45) subject to such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.
3. Authorize the Chairperson to monitor performance of the permitted work and take appropriate action including but not limited to issuance of fines and /or revocation of the permit, if necessary.

Respectfully submitted,


CARTY CHANG
Acting Chief Engineer

APPROVED FOR SUBMITTAL:


LAURA H. THIELEN
Chairperson

Exhibit(s):	1	Owner Permit Application
	2	Location Map and Picture of location
	3	Construction Drawing pages

State of Hawaii
BOARD OF LAND AND NATURAL RESOURCES
Department of Land and Natural Resources
Engineering Division

APPLICATION FOR APPROVAL OF PLANS AND SPECIFICATIONS FOR CONSTRUCTION,
ENLARGEMENT, REPAIR, ALTERATION, OR REMOVAL OF A DAM

Date of Application: July 30, 2010

Applicant:

Contact Name: Daniel Nellis Firm / Company: Dole Food Company Hawaii

Mailing Address 1116 Whitmore Avenue, Wahiawa, HI 96786

Telephone: 621-3200 Fax: 621-7410 Email: Dan.Nellis@dole.com

The Applicant hereby applies to the Board of Land and Natural Resources for the approval of the attached plans and specification for the Removal / Breach of Dam (construction, etc.) in accordance with Chapter 179D HRS (as amended by Act 262, SLH 2006), and subject to the provisions, conditions, and limitations of the current Hawaii Administrative Rules and various DLNR dam safety guidelines.

Accompanying this application are:

(please check)

1. Filing fee (\$25.00) (Waived for government agencies)
2. Three (3) copies of the Detailed Cost Estimate
3. Three (3) copies of the Final Design Report
4. Three (3) copies of the Plans
5. Three (3) copies of the Specifications
6. Proposed Construction Schedule
7. Supporting documents:

x

x

x

x

x

NAME OF STRUCTURE: Helemano Reservoir No. 11 Dam

DAM OR RESERVOIR LOCATION: Wahiawa; Helemano Stream tributary off of Twin Bridge Road

Island: Oahu

Tax Map Key: (1) 6-4-01:01

Attach USGS topographic map (scale 1" = 2000') and property tax map (showing location access to site, proposed work)

State Land Use District: x Agriculture Urban Rural Conservation

BRIEF DESCRIPTION OF WORK TO BE PERFORMED

Breach of the earthen dam structure by excavating and removing a portion of the embankment. The resulting section will be trapezoidal with 5:1 side slopes. Geofabric and crushed coral will be placed for slope stabilization and vegetation re-establishment and to allow vehicle access to the bottom of the gulch.

EXHIBIT 1

TECHNICAL INFORMATION:

DLNR-Dam Safety-Sheet 2

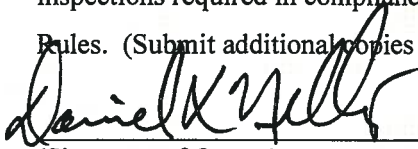
10 JUL 30 PM 01:50 ENGINEERING

1. Drainage Area 0.9 sq. miles or 574 acres
2. Classification of Dam Small, Unclassified
3. Type of Structure Earthen Dam
4. Elevation-Area-Capacity Data:
- | | Elevation | Surface Area
(acres) | Total Storage
Volume (acre-feet) |
|--------------------|-----------|-------------------------|-------------------------------------|
| Natural Streambed | 674 | 0 | 0 |
| Primary Spillway | 685 | 3.7 | 20.1 |
| Secondary Spillway | N/A | | |
| Top of Dam | 695 | 7.5 | 76.0 |
| Design Water Level | N/A | | |
| Invert of Drain | 666 | 0 | 0 |
5. Spillway Details (Type, Dimensions, Material)
Primary: 6' wide rectangular concrete channel
Secondary: N/A
6. Purpose of Structure Impoundment for Irrigation Water
(water supply, irrigation, recreation, real estate development, etc.)
7. Attach rainfall and stream flow records, and flood-flow records and estimates (as accurately as may be readily obtained)

ADDITIONAL INFORMATION

1. Primary Owner Contact (if different from applicant) (Same as Applicant)
Owner Company or Entity: _____
Mailing Address _____
Telephone: _____ Fax: _____ Email: _____
2. Registered Hawaii Professional Engineer who prepared the plan Kevin T. Mendes, P.E.
Mailing Address 2024 N. King Street, Suite 200, Honolulu, HI 96819
Registration No. 8200-C
Telephone: 842-1133 Fax: 842-1937 Email: kevinm@rmtowill.com
3. Registered Professional Engineer to be responsible for inspection during construction _____
Kevin T. Mendes, P.E.
4. Contractor (If known) TBD
Mailing Address _____
Telephone: _____ Fax: _____ Email: _____
5. List all other permits applications submitted to other governmental agencies:
Grading Permit (DPP, City & County); NPDES NOI-C (Dept. of Health, CWB)
6. Anticipated effect of proposed structure on natural environment: N/A

7. List all other parties that have ownership or other interest on the parcels where the dam and reservoir are located and identify their interest in the property. The Owners herein listed below concur with the work proposed within this application by the applicant and by his/her signing hereto, the owner of the land extends to the Board of Land and Natural Resources, and its designated representatives, a right-of-entry onto the project site to conduct any investigations or inspections required in compliance with the provisions of Chapter 13-190, Hawaii Administrative Rules. (Submit additional copies of this sheet should there be more owners)


(Signature of Owner)

1116 Whitmore Ave., Wahiawa, HI 96786
Owner
(Address / Interest in Dam or Reservoir)

(Signature of Owner)

(Address / Interest in Dam or Reservoir)

(Signature of Owner)

(Address / Interest in Dam or Reservoir)

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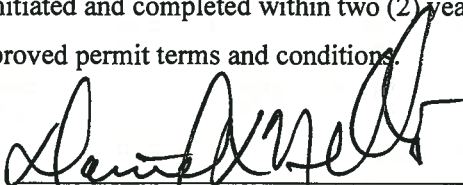
(Signature of Owner)

(Address / Interest in Dam or Reservoir)

(Signature of Owner)

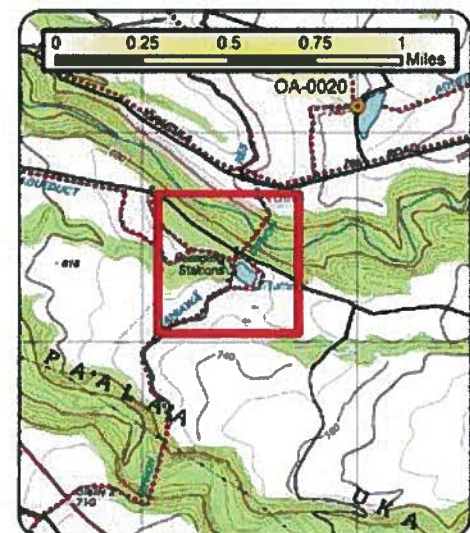
(Address / Interest in Dam or Reservoir)

I, Daniel Nellis, the applicant, hereby certify that the information herein is true and factual to the best of my knowledge. Signing below indicates that the applicant understands that, if the permit requested is granted by the Board of Land and Natural Resources, the proposed work is to be initiated and completed within two (2) years of the approval date, unless specifically permitted in the approved permit terms and conditions.


(Signature of Applicant & Title)

Daniel X. Nellis
Operations Director

Date: July 28, 2008



1:4,000

0 150 300 600 900 1,200 Feet

Helemano 11 Reservoir
UOA-2010



1. General Information

a. State Dam ID	UOA-2010
b. National ID	
c. Dam Name	HELEMANO 11 RESERVOIR
d. Other Name(s)	TWIN BRIDGES ROAD 720' RESERVOIR
e. Longitude / Latitude	-158.0585 / 21.5682
f. County / Island	Honolulu / Oahu
g. Type of Dam	
h. Purpose	Irrigation
i. Completed / Last Modified	/
j. Nearest City / Town	
k. Water Body Type	Unregulated Dam
l. Dam Height	30 ft
m. Dam Length	
n. Drainage Area	/

2. Owner Information

a. Name of Owner	Dole Food Company Hawaii
b. TMK(s):	(1) 6-4-001:001 & (1) 6-4-002:001

3. Hazard Potential Classification

a. Hazard Rating	
b. Date of Assessment	

4. Other Information

a. Last Inspection	
b. Emergency Action Plan Date	